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Exploring the Factors Influencing Disaster Preparedness Behaviour of Local Residents in Disaster Affected Tourism Destinations in Kerala

SYNOPSIS SUBMISSION

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1. Introduction

Tourism industry has been found to be more prone to be hit by disasters than other industries (Chowdhury et al., 2019; Jiang & Ritchie, 2017). Although natural disasters occur less frequently and because of their unpredictability, people need to prepare for them before they occur. To increase disaster preparedness behavior among residents, it is necessary to explore factors related to disaster preparedness motivations and behaviors prior to the implementation of appropriate disaster preparedness strategies. Disaster preparedness is a set of steps taken to guarantee that the resources needed for a successful response are accessible before a disaster happens or that the resources can be accessed quickly when disaster strikes. The resident of a community is the first person to respond to an emergency crisis Preparedness is seen as critical to practitioners in disaster management but has rarely been tested and validated as a theoretical concept within a model of scholarly hazard research. Among the literatures reviewed, limited studies have been conducted in the field of disaster management in tourism. Due to the unpredictable and uncertainty of the disasters, the behavioural preparedness is significant in dealing with the disaster management process. In particular, it is believed prior tourism study hasn't investigated how disaster preparedness behaviour may influence local community attitude, which, in turn, influence disaster preparedness behaviour. Finally, this study addresses for more research to understand factors influencing disaster preparedness in the tourism sector and research. Although a limited number of studies in the tourism industry applied the Theory of Planned Behaviour and Place Attachment Theory to assess intentions, attitudes of an individual but not have extended it to incorporate disaster preparedness for tourism industry.

2. Literature Review

Table 1: Review of Literature

Sl. no.	Author & Year	Variables	Findings
1.	Ng, 2022	Risk perception, Attitude, Intention, Behaviour, Perceived behavioural control	This study demonstrated the value of extending the original theory of planned behavior by adding risk perception. Risk perception directly affected disaster preparedness behavior, while generating indirect effects via subjective norm. Although risk perception changed attitude and and disaster preparedness behavior.
2.	Nian, et al., 2019	Community participation attitude, Community attachment, Community participation intention, Crisis response attitude	This study investigates the attitudes and behavioural intentions of community crisis response and tourism community participation in tourist destinations. The results indicated that perception, community attachment, and community resilience have a positive effect on community participation.

3.	Gumasing, et al., 2022	Disaster Adaptation, Disaster Awareness, Risk Perception, Perceived Preparedness	This study examined the preparedness of Filipinos using a novel framework considering ergonomic domains and disaster knowledge.
4.	Wang, 2021	Place attachment, Self-efficacy, Disaster experience, Disaster Preparedness	The results demonstrate that both the place attachment and self-efficacy are correlated with higher degrees of overall preparedness and self-efficacy plays a mediating role between place attachment and disaster preparedness.
5.	Titko & Ristvej, 2020	Disaster experience, disaster perception, disaster awareness, objective preparedness and subjective preparedness	Improvement of the economic situation of households, providing information from the past, and strengthening risk and disaster awareness, and adequate procedures for their solutions, are those factors that have the most principal influences on preparedness level.
6.	Yu, et al., 2020	Disaster Preparedness Knowledge, Self-Efficacy, disaster preparedness	The results indicate that receiving DRR information from local officials increases villagers' knowledge concerning disaster preparedness, which in turn promotes their perceived and actual disaster preparedness.
7.	Ejeta, et al.,2020	Past experience, Perceived likelihood, Perceived consequence, Intentions, Preparedness	The analyses revealed that past flood disaster experiences significantly influenced negative feeling, perceived likelihood, perceived consequence, anxiety, trust, preparedness intention and community preparedness for flood hazard.
8.	Ong et al.,2022	Perceived vulnerability, perceived severity,attitude,	Attitude, Perceived Severity and Subjective Norm are all key factors affecting the intention of the people to prepare
9.	Ning et al., 2021	Individual Emergency Preparedness Behaviors, Knowledge, Attitudes, Perception, Self-Efficacy	This study revealed that personal emergency preparedness behaviors are associated with knowledge, attitudes, risk perception, self-efficacy, and training/exercise.
10.	Kim & Kim, 2022	Prior disaster experience, anxiety, perceived disaster risk, and disaster preparedness knowledge, household disaster preparedness	The predictors of household disaster preparedness were occupation, economic status, prior disaster experience, anxiety, disaster preparedness knowledge, front-line preparedness, and community resilience. Community has a greater impact on household disaster preparedness
11.	Zaremohz zabieh, et al, 2021	Attitude, subjective norms, community participation, and community-agency trust, Behaviour	The findings demonstrated support for the extended model of TPB and showed that attitude, subjective norms, community participation, and community-agency trust were significant predictors of behavior intention to engage the household in earthquake preparedness.

12.	Xu et al.,2018	Preparedness behavior, Sense of Place, Risk perception	Households' awareness of the need to prepare for disasters was relatively low, and disaster preparedness behaviors were mainly based on self-learning. Risk perception and sense of place had important influences on disaster preparedness.

3. Operational Definition

Table 2: Operational Definition of the variables

Variables	Operational Definition
Disaster Preparedness Behaviour (DPB)	Capacities developed by individuals to anticipate, respond to all disasters and the related efforts to reduce the impact of a disaster.
Risk Perception (RP)	Individual's subjective assessment of the possibility of unfavorable consequences and impact of disasters.
Place Attachment(PA)	Affection and emotions that connect people to places or physical environment.
Community Participation Attitude (CPA)	Extent to which a person develops a positive or negative perception towards disaster preparedness behaviour.
Community Participation Intention (CPI)	Voluntary decision to perform a particular behavior or take an action for minimizing disaster risks.
Self Efficacy (SE)	Individual's belief or perception about the capacity to practice or implement a task or action for disaster management

4. Research Gap

And so far, very few studies are conducted in disaster preparedness concept especially focusing local community participation in tourism industry. Studies are limited in international and national literatures in the concept of the unpredictability of disasters. After the extensive literature review, the research gaps identified are:

- Studies explored the importance of disaster preparedness in disaster management process. Among the literatures explored, there aren't any studies held for Kerala Tourism Disaster Preparedness through Local Community Participation.
- Studies have found the behavioural patterns of local community and tourists in various perspectives and locations. Very few studies are conducted regarding the identification of influencing factors of Disaster Preparedness Behaviour in Tourism Destination management.
- To investigate the mediating role of self-efficacy between place attachment and disaster preparedness behaviour in tourism disaster preparedness context is under explored.
- To investigate the mediating role of community participation intention between community participation attitude and disaster preparedness behaviour in tourism disaster preparedness is seldom explored.

- Empirical study on the disaster preparedness behaviour and the influencing factors such as Place Attachment, Self Efficacy, Risk Perception, Attitude, and Intention is seldom identified especially in tourism.

5. Statement of the Problem

Wayanad and Kozhikode districts of Kerala are highly vulnerable to the natural and manmade disasters. The behavioural factors must be identified to make local community more confident to react and respond to the disasters in facilitating local community to engage in preparing for disasters and training to respond in the terms of individual behaviour. The local community is unaware about the importance of disaster preparedness, and for reducing the impact of disasters in tourism, the influencing behavioural factors of the local community need to be explored.

6. Research Questions

Based on the reviews following are the research questions to be answered:

1. What are the factors influencing disaster behavioural preparedness of the local community?
2. Does the behavioural factors of the local community have influence on disaster preparedness in tourism?
3. Does self efficacy have a mediating role between place attachment and disaster preparedness?
4. Does community participation attitude and community participation intention have a mediating role between risk perception, place attachment and disaster preparedness behaviour?

7. Objectives of the Study

The major objective of the study is to examine the factors influencing tourism disaster behavioural preparedness through local community participation of Wayanad and Kozhikode districts. And to achieve the major objective, the following subsidiary objectives developed are:

1. To identify the factors influencing disaster preparedness behaviour of local community
2. To identify the relation of behavioural factors (Risk Perception, Place Attachment, Community Participation Attitude, Community Participation Intention, Self Efficacy) on Disaster Preparedness Behaviour.
3. To investigate the mediating role of Self Efficacy between Place Attachment and Disaster Preparedness Behaviour.
4. To investigate the mediating roles of Community Participation Attitude and Community Participation Intention between Risk Perception, Place Attachment and Disaster Preparedness Behaviour.

8. Scope of the Study

Disaster preparedness is building up of capacities before a disaster situation prevails inorder to reduce impacts. Its measures include inter alia, availability of food reserve, emergency reserve fund, seed reserve, health facilities, warning systems, logistical infrastructure, relief manual, and shelves of projects and even in terms of individual behaviour. Preparedness efforts focus on changing human behaviors in ways that reduce people’s risk and increase their ability to cope

with hazard consequences. The study helps to understand the role of local community in disaster preparedness and facilitate them to engage in destination management in disaster scenario. Also it could be a recommendation to stakeholders for tourism disaster management in preparing local community in the perspective of behavioural patterns. The study is a suggestion to build a supporting framework to tourism disaster preparedness practices to the host community of Kerala tourism to cope with future disasters. And finally it add to the existing literature of behavioural theory of disaster preparedness.

9. Theories and Adapted models for the study

The theories supported for the study was Place Attachment Theory and Theory of Planned Behaviour. Place Attachment Theory explains how individuals create an emotional bond with places, including people's past experiences and future behavioural intentions (Scannell & Gifford, 2014). The theory of planned behavior is a theory used to understand and predict behaviors, which posits that behaviors are immediately determined by behavioral intentions and Behavioral intentions are determined by a combination of three factors: attitudes toward the behavior, subjective norms, and perceived behavioural control.

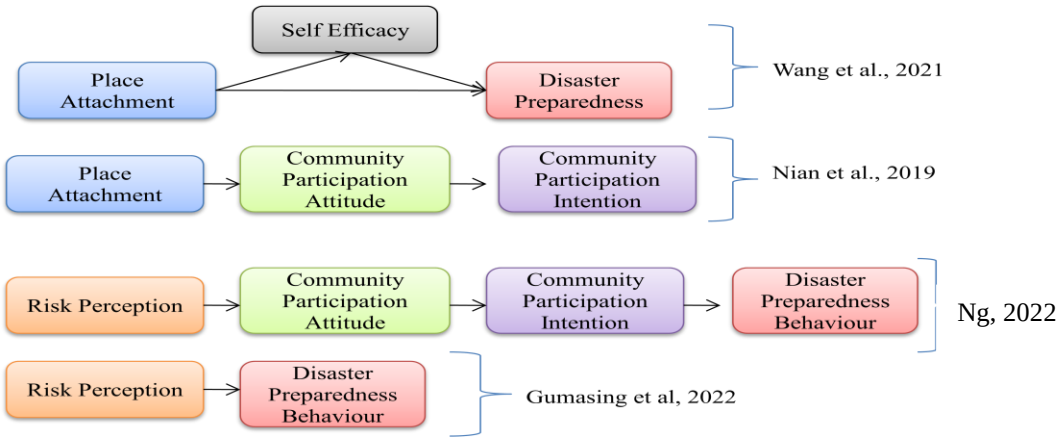


Figure 1: Adapted models for the study

10. Conceptual model & Hypotheses framed for the study

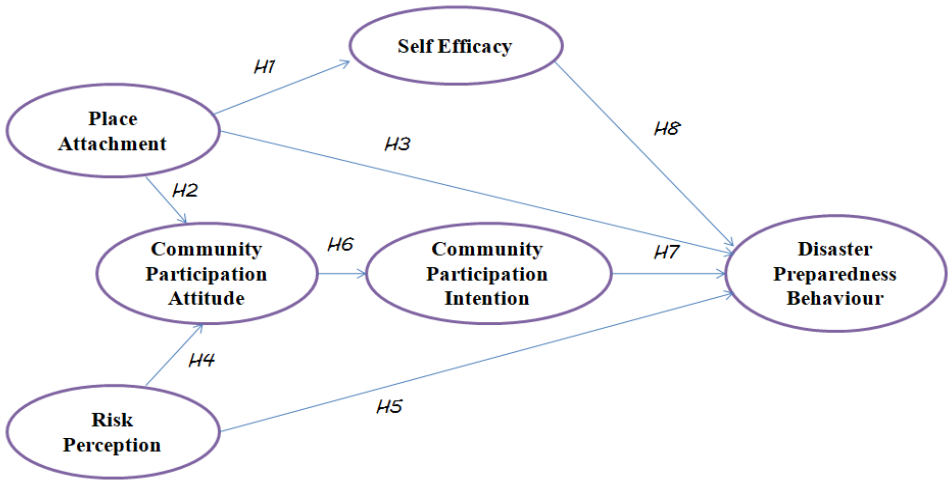


Figure 2: Conceptual model of the study

H1: Place Attachment has a significant influence on Self Efficacy.

H2: Place Attachment has a significant influence on Community Participation Attitude.

H3: Place Attachment has a significant influence on Disaster Preparedness Behaviour.
H4: Risk Perception has a significant influence on Community Participation Attitude.
H5: Risk Perception has a significant influence on Disaster Preparedness Behaviour.
H6: Community Participation Attitude has a significant influence on Community Participation Intention.
H7: Community Participation Intention has a significant influence on Disaster Preparedness Behaviour.
H8: Self Efficacy has a significant influence on Disaster Preparedness Behaviour
H9: Self Efficacy mediates between Place Attachment and Disaster Preparedness Behaviour.
H10: Community Participation Attitude and Community Participation Intention mediate between Place Attachment and Disaster Preparedness Behaviour.
H11: Community Participation Attitude and Community Participation Intention mediate between Risk Perception and Disaster Preparedness Behaviour.

11. Research Methodology

The research type is quantitative and descriptive approach is used. Local Residents of Wayanad and Kozhikode districts were considered as the sample. For Questionnaire validation, a pilot study of 172 respondents was carried out. After the pilot study, the questions that were difficult to perceive by the respondents were reframed and finally incorporated with modifications required to finalize for the data collection. And found the internal consistency of the questionnaire from the reliability analysis using SPSS version 20. From the experts' opinion, District Tourism Promotion Council of Kozhikode districts, District Disaster Management Authority staffs of Wayanad and tourism subject expert were directly contacted to evaluate the questionnaire and check for common errors like double-barreled, confusing, and leading questions. The confusing questions were identified and modified according to the experts' opinion. The Period of Data collection was from November 2023 to February 2024 from Wayanad and Kozhikode Districts of Kerala. The Sources of data, both primary and secondary data were used. For primary data, structured questionnaire adapted from the studies of Ng (2022), Nian et al., (2019), Gumasing et al., (2022) and Wang et al., (2021) was used through offline mode. The questions were translated to the local residents in the regional language (Malayalam). The Ethical Clearance was obtained from Avinashilingam Institutue (Approval number: AUW/IHEC/TM-22-23/XPD-02). The overall reliability of the scale of Cronbach's alpha to be 0.888 and the reliability coefficient of each dimension of Cronbach's alpha to be between 0.749–0.892, which is more than the threshold value. The data was analyzed using Descriptive Statistics, Frequencies, ANOVA, SEM analysis and Mediation analysis (SPSS 20 & AMOS 23)

12. Questionnaire construction

All instrument items were adapted from previous literature and modified to fit the current research context. The survey consists a total of 38-item questions. Seven latent variables were used in the survey. The questions were set with a Five point Likert's scale ranging from 5 (strongly agree) to 1 (strongly disagree). Part I of the questionnaire consists of the indicators based on disaster preparedness behavior and the influencing factors. The respondent's demographic profile was determined in the Part B of the questionnaire (9 items), which included age, gender, marital status, educational level, occupation, annual income, household size, prior disaster experiences and most dreadful disaster from the respondents opinion.

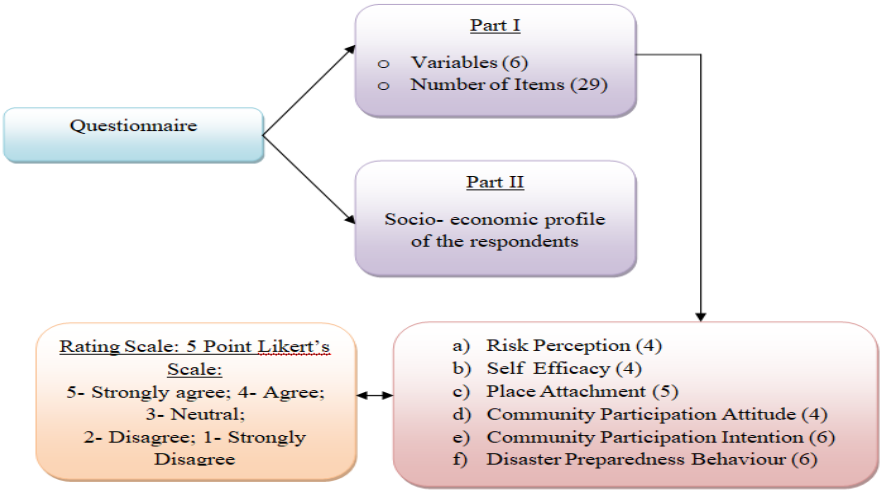


Figure 3: Questionnaire construction

13. Data Analysis & Results

13.1 Socio-economic profile of the respondents

Table 2: Socio-economic profile of the respondents

Factors	Constructs	Percent
Gender	Male	53.5
	Female	46.5
Age	18- 20 years	4.7
	21-40 years	57.8
	41-60 years	34.1
Marital Status	Married	64.5
	Unmarried	35.5
Educational qualification	SSLC	5.4
	HSC	9.4
	Undergraduate	33.3
	Postgraduate	24.4
	Professional	19.7
	Other	5.4
Occupation	Business	28.0
	Govt. Sector	33.1
	Private Sector	26.3
	Other	12.5
Annual Income	Below Rs.2,50,000	48.4
	Rs.2,50,001 to Rs.5,00,000	38.0
	Rs.5,00,001to 7,50,000	11.5
	Above 7,50,001	2.1
Household size	Less than 2	4.0
	2- 4	27.7

	4 - 6	49.7
	6 or more	18.6
Most dreadful disaster	Floods	20.0
	Landslides	27.1
	COVID 19 Pandemic	45.5
	Nipah Virus	7.4

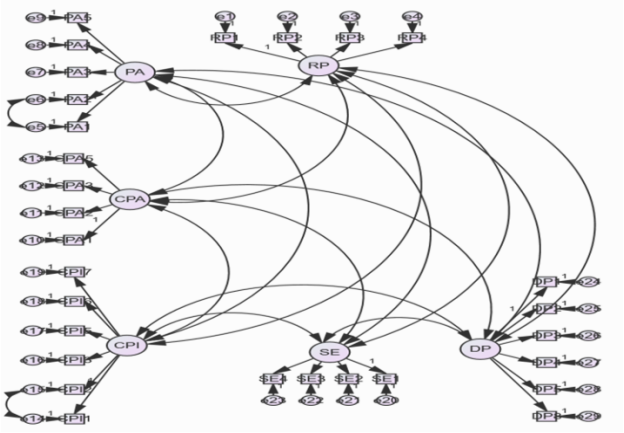
Source: Primary Data

The socio economic profile of the respondents shows that, majority are Male belonging to the age category of 21-40years. Most of them have Under graduation as their educational qualification and occupation in Govt. sector. Majority have their annual income between Rs.2,50,001 to Rs.5,00,000 and having 5-6 members in their family. They consider that COVID19 pandemic as most dreadful disaster.

We have conducted descriptive statistics of all the variables and found that local community has agreed to all the statements of each variable. And through One Way ANOVA, the Influence of socio economic factors on Disaster Preparedness Behaviour were identified. The table shows that all the socio economic factors have significance on disaster preparedness behaviour (Table 3; $p<0.05$).

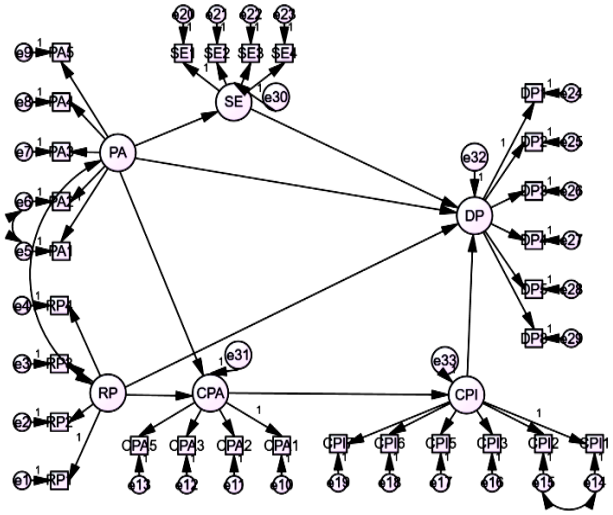
Table 3: Influence of socio economic factors on Disaster Preparedness Behaviour and factors

Variables	Age	Education	Household Size	Occupation	Annual Income
Disaster Preparedness Behaviour	.023**	.030**	.027**	.000**	.003**
Risk Perception	.334	.047**	.225	.054	.018**
Place Attachment	.009**	.801	.987	.001**	.972
Self Efficacy	.028**	.002**	.009**	.014**	.031**
Community Participation Attitude	.020**	.521	.184	.051	.068
Community Participation Intention	.047**	.004**	.517	.000**	.190



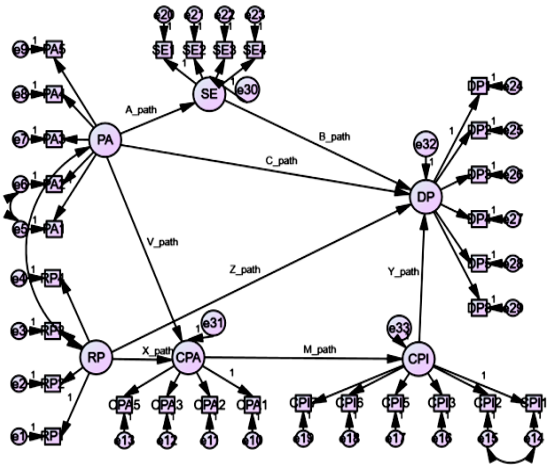
CMIN/DF	GFI	AGFI	CFI	RMSEA
1.986	0.923	0.907	0.941	0.041
1 – 3	Above 0.8	Above 0.8	Above 0.8	Less than 0.05
Chi-square	715.020			
Degrees of Freedom	360			
Probability level	0.000			

Source: Primary Data



CMIN/DF	GFI	AGFI	CFI	RMSEA
2.234	0.912	0.895	0.924	0.046
1 - 3	Above 0.8	Above 0.8	Above 0.8	Less than 0.05
Chi-square Degrees of Freedom Probability level		817.818 366 0.000		

-Source: Primary Data



Parameter	Path coefficient	Lower	Upper	P
Serial1 RP-CPA-CPI-DP	.051	.024	.097	.001
Serial2 PA-CPA-CPI-DP	.024	.006	.060	.002
PA-SE-DP	.039	.018	.076	.000

Source: Primary Data

The CFA and SEM results shows that the model has good fit, the values are ranging within the the recommended values as the above table describes.. The mediation analysis using 2000 bootstraps at 95% of confidence interval was performed to understand the mediating roles of self efficacy, community participation attitude and community participation intention between the independent and dependent variables. The syntaxes mentioned in user defined estimands are:

1. Simple mediation analysis for self efficacy between place attachment and disaster preparedness behaviour (PA – SE – DP: A_path – B_path – C_path)
2. Serial mediation analysis for community participation attitude and community participation intention between place attachment and disaster preparedness behaviour (PA – CPA – CPI – DP: V_path – M_path – Y_path)
3. Serial mediation analysis for community participation attitude and community participation intention between risk perception and disaster preparedness behaviour (RP – CPA – CPI – DP: X_path – M_path – Y_path)

14. Findings of the Study

RQ1: What are the factors influencing disaster behavioural preparedness of the tourism community?

Table 4: Factors influencing disaster behavioural preparedness of the tourism community

Age	✓ People got older, they tended to perceive to be better prepared but engaged in fewer actual preparations. ✓ The difference between older and younger counterparts in disaster preparedness is the result of factors associated with life experiences and timing of lives.	Chen &Cong (2024), Najafi et al. (2015)
Education	✓ The study found that education can increase disaster preparedness and reduce vulnerability to natural hazards. ✓ With regard to education, higher education levels are associated with increased levels of disaster preparedness and lower education levels are associated with lower levels of disaster preparedness	Hoffmann &Muttarak (2015), Mishra &Suar (2005)
Occupation	✓ Employed people are more prepared than unemployed individuals. ✓ Occupational characteristics impact individuals' perceived risk, access to information and their ability to carry out preparedness measures.	Sherman et al. (2001), Najafi et al. (2015)
Household Size	✓ Having more household members, at home could contribute to be aware of how individual must prepare for a disaster. ✓ Family size is generally considered to foster peoples' disaster preparedness.	Eng & Rhein (2016)
Annual Income	✓ An individual characteristic such as income level is identified one of the predictors of disaster preparedness behaviour. ✓ It can be explained by the fact that people with higher and lower income are expected to have more or less access to qualified properties and live in more disaster resistant areas respectively.	Tohan et al. (2024)

The factors influencing for disaster preparedness behaviour were identified is given in the above figure.

RQ2: Does the tourism community's behavioural factors have influence on disaster preparedness in tourism?

Table 5: Relation between factors influencing on disaster behavioural preparedness of the tourism community

Self Efficacy ↓ Significant DPB	✓ Self efficacy could have an effective variable in developing disaster preparedness behaviour of the community. ✓ Higher level of self-efficacy was more likely to prepare for disasters after receiving disaster risk. The capacity and ability of an individual reflect in preparedness measures.	Wang et al., 2021 Hasan et al., 2024 Sun et al.,2024
Place attachment ↓ Significant DPB	✓ The higher levels of increased place attachment contribute to the greater objective for preparedness. ✓ The Community who had roots in the area and viewed their community as a main source of economic and social livelihood was more likely to take steps to prepare for disasters than those who are new residents.	Sun et al., 2024 Boon, 2014
Community Participation Attitude ↓ Significant Community Participation Intention	✓ Attitude refers to the extent to which a person develops a positive or negative perception towards a given behavior. ✓ It has direct correlation with the intention of an individual. The more favourable of attitude of an individual, the more likely to intend a behaviour.	Ng,2022 Jang et al.,2016 Ajzen, 1991
Community Participation Intention ↓ Significant DPB	✓ Intention was a significant predictor, direct prerequisite and a proxy measure that affects the behavior. ✓ The level of intention is higher, it influences the preparedness behaviour of an individual.	Ng,2022 Jang et al.,2016 Ajzen, 1991
Risk Perception ↓ Insignificant DPB	✓ Perception of risks of disasters is high, preparation is generally low in the local community. ✓ Therefore the study finds that the people perceive risk in a way, but their high level of risk perception doesn't lead to the disaster preparedness behaviour of the local community. ✓ The phenomenon is known as *Risk Perception Paradox.*	Gumasing et al., 2022 Ng,2022

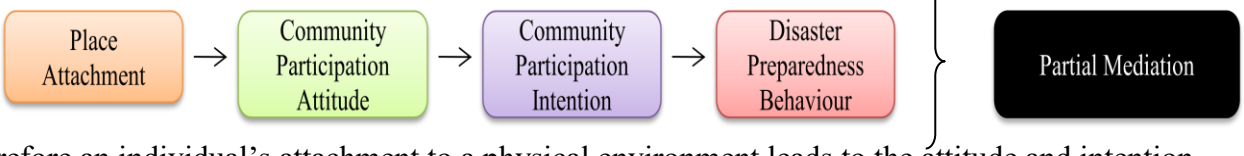
RQ3: Does self efficacy have a mediating role between place attachment and disaster preparedness?

- With the support of place attachment theory, Self-efficacy is an essential precursor to prepare for disasters. High self-efficacy can motivate disaster preparedness intentions or the actual behaviors.
- Place attachment shows direct effect with the disaster preparedness behaviour and facilitating self efficacy as a mediating variable also shows a indirect effect between the place attachment and disaster preparedness behaviour.
- Therefore partial mediation is present between the place attachment and disaster preparedness behaviour.
- The findings show that an individual's affection towards a place with high level of SE could motivate the disaster preparedness behaviour. (H9 accepted)

RQ4: Does community participation attitude and community participation intention have a mediating role between risk perception, place attachment and disaster preparedness behaviour?

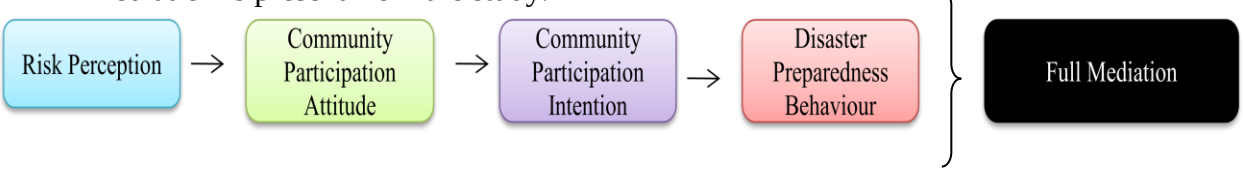
Community participation attitude and community participation intention shows serial mediation between Place attachment, Risk perception and disaster preparedness behaviour.

- With the support of Theory of Planned Behaviour, CPA and CPI shows serial mediation between PA, RP and DPB.
- From the statistical mediation analysis, and the indirect effect through the community participation attitude and community participation intention between place attachment and disaster preparedness behaviour is also significant. Therefore exists the partial mediation between the variables.



Therefore an individual's attachment to a physical environment leads to the attitude and intention in participating with community and develops the disaster preparedness behaviour to reduce the risks of disasters. H10is accepted. That is, there is a mediating roles of community participation attitude and community participation intention between place attachment and disaster preparedness behaviour.

- From the statistical mediation analysis, the direct effect between risk perception and disaster preparedness behaviour is not significant. And the indirect effect through the community participation attitude and community participation intention between risk perception and disaster preparedness behaviour is also significant. Therefore full mediation is present from the study.



Therefore an individual perceives of disaster risk leads to the attitude and intention in participating with community and develops the disaster preparedness behaviour H11is accepted. That is, there is a mediating roles of community participation attitude and community participation intention between risk perception and disaster preparedness behaviour.

15. Suggestions

- Vulnerable assessment and forecasting of disasters (Weather prediction system) improves in perceiving the possible risks of future disasters. The alerts could be available to every individual residing the particular region to minimize the adverse impact of disasters. Forecasting disasters means the system to weather prediction, which improves in perceiving the possible risks of future disasters. By providing alarms and alerts to the individual the adverse effects of the disasters can be reduced.
- Due to the importance of risk perception and disaster preparedness, awareness programs are always necessary to enhance risk perception that leads to preparedness in society to keep motivated accordingly.
- Reliable Information sharing system and technological advancement (Doppler radar, Automated Weather stations) improves the trust towards preparedness and build the ability to utilize the resources effectively which results in local community's perception and attitude.
- To strengthen the attitude and high intention to reflect the preparedness behaviour, authorities could create preparation plans since people are highly willing to comply and follow based on their experience with past natural disasters .
- Disaster knowledge should be given priority and are crucial in supporting institutional policies to enhance the resilience and adaptability of the local community to make them self efficient to respond to future disasters.
- Consider most vulnerable groups separately, educate the focus groups on disaster preparedness and provide practical training to make them self resilient.
- Residents in highly exposed locations must be practice preparation and evacuation activities ahead of time using practical training (mock drills, live training). A disaster preparedness behavioural model development with support of NGO and LGU is essential for disaster prone areas for fostering resilience and advance disaster risk reduction to the people's adaptation in preparedness despite the negative effects brought by recent natural disasters.
- The Government should increase the response, actions, and assess the effective strategies of different foreign and local institutions. In this way, the aftermath of future massive events may be reduced and results in capacity building and response effectiveness of the local community can be strengthened.
- Also develop constructions and shelters in the disaster prone areas with specification of design that are disaster resistant and secure (Permanent modern housing).
- The proved theoretical model of the study could be utilized for further research in disaster management in behavioural terms.
- The improper land use, construction, mining and quarrying activities in such sensitive areas (Wayanad and Kozhikode) could restrict in future.
- Encourage reforestation in the areas and construction of retaining walls of prone areas could reduce the impact of landslides.
- Establishing automated weather stations in the study areas facilitate to ensure timely evacuation and quick response to disasters can be introduced.

16. Conclusion

Disaster management in tourism depends on local community who support in achieving the goals and objectives in disaster preparedness, disaster risk assessment, risk reduction, capacity building, disaster response, and recovery for the destinations also in behavioural terms. Disaster preparedness is an essential aspect of reducing the damage caused by disasters. Therefore, it is crucial to identify and evaluate the factors associated with disaster preparedness. However, despite being one of the most disaster-prone countries, the overall disaster preparedness of Wayanad and Kozhikode residents is low in engaging for disaster preparedness. This situation is concerning, and policymakers, including the government, must prioritize disaster preparedness. The study identified annual income, house hold size, age; occupation and education are variables that proved to enhance disaster preparedness behaviors. The government and private organizations can play significant roles in enhancing these variables to increase disaster preparedness. The relationship between the influencing factors and disaster preparedness behaviour shows that significant relationship exists between place attachment, self efficacy, community participation attitude and community participation intention to the disaster preparedness behaviour. And insignificant relationship exists between risk perception and disaster preparedness behaviour. The insignificant relationship shows the importance of improving the level of disaster preparedness to develop the disaster management systems that enhance risk reduction. Enhancing emergency management knowledge, strengthening community coordination and communication could facilitate in reducing hazards risks reflects in DPB to improve response efficiency and effectiveness in tourism sector. Therefore this study throws insights upon the disaster preparedness in tourism by identifying the behavioural factors in minimizing the potential risks of the disasters.

The tourism communities' attachment to the community has promoted the enthusiasm of local communities to participate in tourism development, enhanced the protection of local tourism resources, maintain and promote the disaster management process of local communities and tourism. A hybrid model of disaster preparedness behavior, taking into account vulnerability and exposure to disasters, could provide valuable insights into tourism and disaster preparedness. Ultimately, it is the responsibility of the local residents to understand the importance of disaster preparedness and be self-motivated to engage in disaster preparedness activities. Without the cooperation of the community, achieving proper disaster preparedness is difficult. This study was supported by the theory of planned behavior and place attachment theory to predict the disaster preparedness behavior of vulnerable people in Wayanad and Kozhikode districts using the data acquired from questionnaire survey. Confirmatory factor analysis affirmed the validity of the model and the final structural equation model adequately fits the data. The results indicated that risk perception has insignificant relationship on disaster preparedness behaviour. Risk perception has relationship on attitude and intention to DPB. This study demonstrated the support of both theories for predicting influencing factors of DPB of an individual. Educational and promotional programs are necessary to enhance risk perception and cultivate a preparedness culture in society. These findings highlighted the unique strengths of adults in preparing for disasters and the importance of community participation in promoting preparedness amongst populations of Wayanad and Kozhikode districts, which can be explained by that, if the influencing factors are strengthened the individuals will be motivated and it automatically reflect in their disaster preparedness behaviour to react and respond.

17. Future Study

Relations identified for behavioural factors by the structural equation modeling were limited in disaster management. Nevertheless, these findings cast light on developing research questions and hypotheses that address the future studies. Future research could incorporate in-depth interviews, to the local community help to understand the causal relations between disaster preparedness behavior and its predictors. Although risk perception is believed to generate a multitude of effects on disaster preparedness behavior, the process of how risk perception insignificantly affects disaster preparedness behavior has not yet been clarified by the existing literature. Future research could be conducted on considering some factors such as degree of crisis impact, and life cycle of a tourism destination. The study is limited to the behavioural preparedness; future research can be done by considering other types of disaster preparedness such as material and knowledge preparedness. Stakeholders' involvement in disaster preparedness behaviour can be studied. And Other behavioural theories could be incorporated in connection with the explored behavioural factors.

18. Limitations

Generalizability is one of the limitations for the study. Due to the community characteristics, regional variations and type of disasters happening, the study might not be applicable to every geographical region. And the study has not specifically studied the behaviour preparedness of Most Vulnerable Groups such as pregnant ladies, children, elderly peoples and differently- abled. The preparedness behaviour of MVG may differ from one other. Disasters are volatile in nature leading to perception bias; the characteristics of disasters,(uncertainty and unpredictability could change the perception of local community in terms of disasters happening and individual characteristics. And long gap between disasters happened could change the mentality of the people which results difference in the disaster preparedness behaviour. Qualitative approach is not addressed; the study is purely on quantitative measures. The emotional, behaviour and sentimental view of respondents could more reflect on the qualitative terms.

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